

REMARKS

Claims 1, 6, 26-29, 32-36 and 39 are pending in the application.

As indicated in the Examiner's final Office Action mailed on November 21, 2007, claims 1, 6, 26-29, 32-36 and 39 are rejected. No claims have been allowed.

In an Advisory Action mailed on February 12, 2008 the Examiner indicated that the Applicant's Response Under 37 CFR 1.116 filed on January 21, 2008 does not place the application in condition.

This Amendment amends claims 1, 6, 33-36, and 39.

Claim Rejections - 35 USC § 102

Claims 1, 6, 29, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawada (JP 8-39860).

For the sake of clarity, the Examiner's rejection of claim 1 as provided in the Advisory Action is reproduced as follows.

First of all, the examiner respectfully disagrees with the overall estimate of Sawada's method steps 1-8 advanced by the Applicant in his remarks. The following is the estimate of Sawada's method steps 1-8 as construed by the examiner, re-using Applicant's own statement and steps:

1. Step S11: applying an initial drive current to the respective LEDs in the single chip or subset under consideration, i.e. LED chip 10-1;
 2. Step S12: measuring the light-emission quantity of each LED of that single chip;
 3. Step S13: temporarily allotting the time correction value to every LED of that single chip based on the measured light-emission quantity of each LED to make the light-emission quantity of the respective LEDs uniform, the time correction value being not the same for every LED in that single chip;
 4. Step S14: calculating the exposure energy of the respective LEDs of that single chip based on the temporary time correction value of the applied drive current;
 5. Step S15: calculating the "average exposure energy EA of a chip" (last two sentences of [0019]) based on the exposure energy of the respective LEDs of that single chip;
 6. Step 16: comparing the average exposure energy EA of that single chip with a predetermined desired value E0, the desired value E0 being the "final average exposure energy of all chips built into a print head" (see [0024]);
 7. Step S17: altering the applied drive current for the respective LEDs of the single chip based on the comparison result obtained in step 6 (S16), and if the average exposure energy EA of that single chip is not the same as the predetermined desired value E0, repeating steps 2-6 until the average exposure energy EA of that single chip is the same as the predetermined desired value E0; and
 8. operating the respective LEDs of that single chip using the altered drive current.
- Sawada further teaches that the above method steps being performed separately for every chip (see [0024]).

In accordance with the teaching of Sawada, claim 1 is rejected as follows:

- calculating a light-output correction for each of a plurality of subsets of the LEDs (the LEDs 12 are organized into a plurality of LED chips 10-1 through 10-3, each subset being controlled by a respective one of a plurality of different controllers (each of the plural LED chips 10-1 to 10-3 is driven by a corresponding drive circuit 14-1 to 14-3) (Fig. 3), each light-output correction for one of the LED subsets being calculated based at least upon factors pertaining to
 - (a) a light output from the one LED subset associated with the light-output correction being calculated for that subset (the emission quantity is measured for each LED in the chip and the emission quantity correction adjusts the light intensity of each LED in that chip based on the measured emission quantity), and
 - (b) an average light output from the plurality of subsets of the LEDs (the average exposure energy EA of a chip is calculated based on the exposure energy of the respective LEDs of that single chip and is compared to the predetermined desired value E0, which is the "final average exposure energy of all chips built into a print head") (see [0019], [0024]); wherein each light-output correction for one of the LED subsets, facilitates correction of the light output from its associated LED subset as function of applied voltage or supplied current (the adjustment of the emission of the LEDs in the chip is made by altering the time duration applied to the supplied current from the corresponding drive circuit, and the adjustment is performed separately for every chip) ([0024]); and
- adjusting the light output from the LED subsets as a function of applied voltage or supplied current in accordance with their corresponding light-output corrections (the emission quantity of the LED in each chip is adjusted based on the correction values obtained separately for each chip) ([0024]),
- wherein each of the plurality of subsets of the LEDs includes more than one LED (each LED chip 10 has a plurality of LEDs 12-1 to 12-64).

Finally, in response to Applicant's argument that "in Sawada any light-output correction that the Examiner construes to be disclosed in Sawada would [be] a single light-output correction for all the LED subsets," the examiner would like to direct Applicant's attention to the disclosure of Sawada at paragraph [0024], which clearly indicates that the adjustment of the emission quantity of the LEDs in the chip is performed "separately for every chip". In other words, the light-output correction value varies from one chip to another

Independent Claim 1

Claim 1 is amended is as follows:

1 (currently amended). A method for tailoring light output from light emitting diodes (LEDs) in a printer or electrographic copier that exposes a charged photosensitive member to light from the LEDs, the method comprising:

calculating a light-output correction for each of a plurality of subsets of the LEDs, each subset being controlled by a respective one of a plurality of different controllers, each light-output correction for one of the LED subsets being calculated based at least upon factors pertaining to (a) a light output from the one LED subset associated with the light-output correction being calculated for that subset, and (b) an average light output from the plurality of subsets of the LEDs, wherein each light-output correction for one of the LED subsets facilitates correction of the light output from its associated LED subset as a function of more or less applied voltage or more or less supplied current; and

adjusting the light output from the LED subsets as a function of more or less applied voltage or more or less supplied current in accordance with their corresponding light-output corrections, so that a dimmer LED receives more voltage or current and a brighter LED receives less voltage or current,

wherein each of the plurality of subsets of the LEDs includes more than one LED.

Differences between Claim 1 and Sawada

Claim 1 calls for the "applied voltage" or the "supplied current", which is received in order to adjust the light output from an LED subset, to be varied in terms of "more or less", "so that a dimmer LED receives more voltage or current and a brighter LED receives less voltage or current". Support for this can be found in the specification, for example at page 6, lines 8-10.

In non-obvious contrast, the Examiner has concluded that Sawada discloses that the adjustment of the light output from an LED subset is "made by altering the time duration applied to the supplied current". See the Examiner's comments above. This is not the same as applying more or less voltage or supplying more or less current, so that a dimmer LED receives more voltage or current and a brighter LED receives less voltage or current, as called for in claim 1.

Independent Claim 6

Claim 6 recites features that differ from Sawada in ways similar to those provided above in regard to the differences between claim 1 and Sawada.


The Dependent Claims

For the sake of brevity, this response omits any discussion of the dependent claims. However, the right to present differences between the dependent claims and the cited art is preserved in regard to further prosecution and/or appeal.

CONCLUSION

This response seeks to convince the Examiner to remove the final rejection of the claims. Failing that, the Examiner is requested to call the undersigned Attorney for Applicant(s) in the event that a telephone interview will expedite prosecution of the application towards allowance or reduce the issues for purposes of an appeal. Also, any suggestion for amending the claims in regard to allowability, which the Examiner cares to offer, would be appreciated.

Respectfully submitted,


Attorney ~~for~~ Applicant(s)
Registration No. 45,287

William R. Zimmerli/rgd
Rochester, NY 14650
Telephone: 585-588-2758
Facsimile: 585-477-4646

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.